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501.43144X00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Toshihiko MURAKAMI

Serial No.: 10/663,732

Filed: September 17, 2003

For: DATA TRANSFER METHOD

RENEWED REQUEST FOR RECONSIDERATION OF PETITION TO MAKE SPECIAL UNDER 37 CFR 1.102(d) and MPEP §708.02, VIII

MS Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

July 11, 2005

Sir:

Applicants again hereby renews its Petition to make this application **Special** previously submitted on December 7, 2004 for which a Renewed Request was submitted on April 11, 2005, in accordance with 37 CFR §1.102(d) and MPEP 708.02, VIII. The April 11, 2005 Renewed Request was denied by a Decision issued on May 16, 2005 in which the Petitions Examiner stated that the April 11, 2005 Renewed Request failed to recite distinct features of the claimed subject matter. The present Renewed Request for Reconsideration of Petition incorporates by reference the December 7, 2004 Petition and the April 11, 2005 Renewed Request and provides additional details regarding the claims and how the claimed subject matter is patentable over the references. The present invention is a new application filed in the United States Patent and Trademark Office on September 17, 2003 and as such has not received any examination by the Examiner.

It should be noted that the May 16, 2005 Decision was discussed in a

personal interview with SPRE Laufer and as such it was agreed that dismissal was improper and that this petition should be reconsidered in that the arguments as presented concerns a combination of elements and their inter-operation that is not taught or suggested by the cited references. Although the combination referred to may have constituted a substantial portion of the claim, the argument that the combination of elements and their inter-operation is not taught or suggested by the cited references is an appropriate argument and as such should not have formed the basis of the dismissal. Accordingly, the May 16, 2005 Decision should be withdrawn and the present Renewed Request entered.

(A) This Petition is accompanied by the fee set forth in 37 CFR §1.17(h).

The Commissioner is hereby authorized to charge any additional payment due, or to credit any overpayment, to Deposit Account No. 50-1417.

(B) All claims are directed to a single invention.

If the Office determines that all claims are not directed to a single invention, Applicant will make an election without traverse as a prerequisite to the grant of special status in conformity with established telephone restriction practice.

(C) A pre-examination search has been conducted.

a. Copy of References

A listing of all references found by the professional searcher is provided by a Form PTO-1449 and copies of the references and the Form PTO-1449 were submitted as part of an Information Disclosure Statement (IDS) filed on December 7, 2004.

(E) It is submitted that the present invention is patentable over the references for the following reasons.

a. Distinct Claimed Features

It is submitted that the cited references, whether taken individually or in combination with each other, fail to teach or suggest the invention as claimed. In particular, the cited references, at a minimum, fail to teach or suggest in combination with the other limitations recited in the claims:

a first feature of the present invention as recited in independent claims 1 and 13 wherein a management device is provided that sets virtual memory areas of the memory device for the computers and holds information on contents of the setting as first information; and

a second feature of the present invention as recited in independent claims 1 and 13 wherein the relay device holds second information which is created based upon the first information and that the relay device selects one virtual memory area from the second information and, when the selected virtual memory area is a memory area formed by combining the memory areas in the memory devices as an opportunity, performs data transfer among the memory devices.

To the extent applicable to the present Petition, Applicants submit that although the distinguishing feature(s) may represent a substantial portion of the claimed invention, the claimed invention including said feature(s) and their inter-operation provides a novel storage system and system and method related to or implemented in or by said storage system not taught or suggested by any of the references of record.

b. Differences Between Claimed Features and References

Below is a brief discussion of the references uncovered by the search and cited in the IDS filed on December 7, 2004 that appear to be most closely related to the subject matter encompassed by the claims of the present application, and which discussion particularly points out how Applicants' claimed subject matter is distinguishable over those references. All other references uncovered by the search and cited in the IDS filed on December 7, 2004 are **not** treated in detail herein.

Honda et al (U.S. Patent Publication Application No. 2004/0103261) shows a system and method of controlling data transfer between a host system and a plurality of storage devices. The computer system has a plurality of host computers 1, a plurality of storage devices 3, a virtualization controller 2 that is connected with the host computers 1 and storage devices 3, and a managing unit 4. The host computers 1, storage devices 3 and the managing unit 4 are connected with the virtualization controller 2 via a network 5, while the managing unit (4) is connected with the virtualization controller 2 via a network 6. The virtualization controller (2) controls data transfer between the storage devices (3) and the host computers (1) in way that the host computers (1) can identify the destination volume (a volume to which data is transferred) using the same identification information that it used to identify the source volume (a volume from which data is transferred). Further, when the virtualization controller (2) is replaced or a new virtualization controller is installed, the new virtualization controller controls the frame sending process in a way that the host computer (1) can access the same volume even after the replacement or installation using the same identification information that it used to identify the volume to be accessed, before the replacement or installation. See Figs. 1, 3-11

and paragraphs [0008]-[0012], [0044]-[0048].

Although Honda teaches the performing of processes with respect to virtualization, the is no teaching or suggestion that a management device is provided that sets virtual memory areas of the memory device for the computers and holds information on contents of the setting as first information. Further, there is no teaching or suggestion in this reference that a relay device is provided for interconnecting the computers, memory devices and the management device and that the relay device holds second information which is created based upon the first information. Still further, there is no teaching or suggestion in this reference that the relay device selects one virtual memory area from the second information and when the selected virtual memory area is a memory area formed by combining the memory areas in the memory devices as an opportunity, performs data transfer among the memory devices.

More particularly, Honda does not teach or suggest the above described first feature of the present invention as recited in independent claims 1 and 13, and the above described second feature of the present invention as recited in independent claims 1 and 13 in combination with the other limitations recited in each of the independent claims.

Fujiwara et al (U.S. Patent No. 6,557,073) shows a storage apparatus including a virtual tape apparatus 3 connected to a host computer, and a tape library apparatus 2. The virtual tape apparatus 3 includes a control section 40 which controls cache memory 36, virtual tape information database 61, virtual storage area space map 62, real tape information database 63 and virtual storage area 50 for storing a virtual tape volume. A data control program 41 is provided in the control

section 40 for controlling the data transfer between the host computer 1 and the virtual storage area 50. The data control program 41 forms groups of virtual tape volumes having identical attributes. See Figs. 2-6, col. 2, lines 20-40 and col. 4, line 46 to col. 6, line 49 and summary.

As understood Fujiwara teaches the use of storage apparatus including a virtual tape apparatus 3 connected to a host computer, and a tape library apparatus 2 and performing some type virtualization processes with respect to the tape. However, there is no teaching or suggestion that a management device is provided that sets virtual memory areas of the memory device for the computers and holds information on contents of the setting as first information. Further, there is no teaching or suggestion in this reference that a relay device is provided for interconnecting the computers, memory devices and the management device and that the relay device holds second information which is created based upon the first information. Still further, there is no teaching or suggestion in this reference that the relay device selects one virtual memory area from the second information and when the selected virtual memory area is a memory area formed by combining the memory areas in the memory devices as an opportunity, performs data transfer among the memory devices.

More particularly, Fujiwara does not teach or suggest the above described first feature of the present invention as recited in independent claims 1 and 13, and the above described second feature of the present invention as recited in independent claims 1 and 13 in combination with the other limitations recited in each of the independent claims.

Fujimoto et al (U.S. Patent Publication Application No. 2004/0103244) shows

a system and managing method for cluster-type storage configured so as to expand from small to large configurations at a remarkable cost. The cluster-type storage includes a plurality of protocol transformation units 10 that interface to the servers 3 and disks 2, a plurality of data caching control units 21 and a plurality of management units (60) that generate a management table 651 in which virtual volume (2) (VVOL 2#) of column (632) are assigned, on the basis of the tables 652-654 in all the control clusters (71). A copy of the portion related to each control cluster (71) is transferred from the table to the target data caching control unit (21). See Figs. 1, 4, 5 and 16-18 abstract and paragraphs [0021]-[0022].

Fujimoto does have some teaching regarding the use of Virtual Volumes (VVOL) which are assigned using table. However, there is no teaching or suggestion in Fujimoto that a management device is provided that sets virtual memory areas of the memory device for the computers and holds information on contents of the setting as first information. Further, there is no teaching or suggestion in this reference that a relay device is provided for interconnecting the computers, memory devices and the management device and that the relay device holds second information which is created based upon the first information. Still further, there is no teaching or suggestion in this reference that the relay device selects one virtual memory area from the second information and when the selected virtual memory area is a memory area formed by combining the memory areas in the memory devices as an opportunity, performs data transfer among the memory devices.

More particularly, Fujimoto does not teach or suggest the above described first feature of the present invention as recited in independent claims 1 and 13, and

the above described second feature of the present invention as recited in independent claims 1 and 13 in combination with the other limitations recited in each of the independent claims.

Rajan et al (U.S. Patent Publication No. 2004/0030822) shows a storage virtualization selection technique that automates a virtualization selection process including layering virtual disk objects on a volume of a file system of a multi-protocol storage appliance 100. The appliance includes a processor 122, memory 124, network adaptors 125, 126, and a storage adaptor 128. A storage operating system 200 also included in the appliance provides the virtualization system to logically organize the information as a hierarchical structure. Thus, the system as disclosed organizes storage of the file system within volumes created among the managed disks, and creates the virtual disk as a storage object within one of the volumes. See Figs. 2, 3 and 6 and paragraphs [0021]-[0025].

Although Rajan teaches a storage virtualization technique that allows for the automation of a virtualization selection process including layering virtual disk objects on a volume of a file system of a multi-protocol storage appliance, there is no teaching or suggestion that a management device is provided that sets virtual memory areas of the memory device for the computers and holds information on contents of the setting as first information. Further, there is no teaching or suggestion in this reference that a relay device is provided for interconnecting the computers, memory devices and the management device and that the relay device holds second information which is created based upon the first information. Still further, there is no teaching or suggestion in this reference that the relay device selects one virtual memory area from the second information and when the selected

virtual memory area is a memory area formed by combining the memory areas in the memory devices as an opportunity, performs data transfer among the memory devices.

More particularly, Rajan does not teach or suggest the above described first feature of the present invention as recited in independent claims 1 and 13, and the above described second feature of the present invention as recited in independent claims 1 and 13 in combination with the other limitations recited in each of the independent claims.

Therefore, since the cited references fail to teach or the above described first feature of the present invention as recited in independent claims 1 and 13, and the above described second feature of the present invention as recited in independent claims 1 and 13, it is submitted that all of the claims are patentable over the cited references whether said references are taken individually or in combination with each other.

(F) Conclusion

Applicant has conducted what it believes to be a reasonable search, but makes no representation that "better" or more relevant prior art does not exist. The United States Patent and Trademark Office is urged to conduct its own complete search of the prior art, and to thoroughly examine this application in view of the prior art cited herein and any other prior art that the United States Patent and Trademark Office may locate in its own independent search. Further, while Applicant has identified in good faith certain portions of each of the references listed herein in order to provide the requisite detailed discussion of how the claimed subject matter is patentable over the references, the United States Patent and Trademark Office

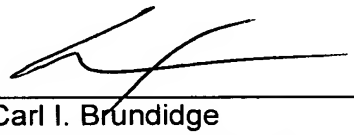
should not limit its review to the identified portions but rather, is urged to review and consider the entirety of each reference, and not to rely solely on the identified portions when examining this application.

In view of the foregoing, Applicant requests that this Petition to Make Special be granted and that the application undergo the accelerated examination procedure set forth in MPEP 708.02 VIII.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (501.43144X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



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